

North Sub-Area Workshop #2 Data Table

4/16/2014

The table below is organized by evaluation factor and includes the data requested in North Sub-Area Workshop #1. Please reference the table below while you use the Segment Scoring Sheet to score the route segments in the north sub-area. Data is organized by evaluation factor.

Glossary:

- Near: Within 600 feet of a corridor
- Adjacent: Within 25 feet of a corridor
- DNR: Washington Department of Natural Resources
- LiDAR: Short for “Light Detection and Ranging,” is a [remote sensing](#) method that uses light in the form of a pulsed laser to measure ranges.
- DBH: Diameter at breast height, or a method of measuring the diameter of a standing tree.

If you do not see data you requested, please review the Response to Data Requests document for an explanation.

Segment data table

Data	Description	Unit	Segment A 0.6 miles	Segment B 6.24 miles	Segment C 3.65 miles	Segment D 2.14 miles
Evaluation factor - Least proximity to sensitive community land uses						
Churches - Near	Religious Service Institution use within 600 feet of a corridor (based on King County assessor data and Google Earth).	Count of Parcels	0	4	2	2
	Religious Service Institution use within 600 feet of a corridor (based on King County assessor data and Google Earth).	Count/Mile	0.0	0.6	0.5	0.9

Data	Description	Unit	Segment A 0.6 miles	Segment B 6.24 miles	Segment C 3.65 miles	Segment D 2.14 miles
Schools - Near	School use within 600 feet of a corridor (based on King County assessor data and Google Earth).	Count of Parcels	0	5	1	1
	School use within 600 feet of a corridor (based on King County assessor data and Google Earth).	Count/Mile	0	0.8	0.3	0.5
Schools - Adjacent	School use within 25 feet of a corridor (based on King County assessor data and Google Earth).	Count of Parcels	0	4	1	0
	School use within 25 feet of a corridor (based on King County assessor data and Google Earth).	Count/Mile	0.0	0.6	0.3	0.0
Students - Near	Number of students attending within 600 feet of a corridor (based on King County assessor data and Google Earth). <i>*Some attendance data not readily available.</i>	Count	0	1046*	651	2664
Child Care - Adjacent	Child Care Facilities within 25 feet of a corridor (based on King County assessor data and Google Earth).	Count of Parcels	0	1	0	0
	Child Care Facilities within 25 feet of a corridor (based on King County assessor data and Google Earth).	Count/Mile	0.0	0.2	0.0	0.0
Recreation - Adjacent	Recreational use within 25 feet of a corridor (based on King County assessor data).	Count of Parcels	0	1	0	0
	Recreational use within 25 feet of a corridor (based on King County assessor data).	Count/Mile	0.0	0.2	0.0	0.0
Parks - Adjacent	Park use within 25 feet of a corridor (based on King County assessor data).	Count of Parcels	0	2	2	2
	Park use within 25 feet of a corridor (based on King County assessor data).	Count/Mile	0	0.3	0.5	0.9
Trails - Near	Length of trails within 600 feet of a corridor (based on King County Trails File).	Miles	0	0.2	0.5	0.6
	Count of trails within 600 feet of a corridor (based on King County Trails File).	Count	0	1	2	2
Trails - Adjacent	Length of trails within 25 feet of a corridor (based on King County Trails File).	Miles	0.00	0.00	0.08	0.00
	Count of trails within 25 feet of a corridor (based on King County Trails File).	Count	0	0	2	0
Registered Historic Sites	Registered Historic Sites within half mile of segments.	Count	0	0	0	0

Data	Description	Unit	Segment A 0.6 miles	Segment B 6.24 miles	Segment C 3.65 miles	Segment D 2.14 miles
Evaluation factor - Least proximity to sensitive environmental areas						
Wildlife	Number of documented wildlife presence per state Priority Habitat and Species Data. Includes known salmonid species present.	Species Count	1	1	0	4
Wetlands	Wetlands identified within 50 feet each side of segment centerline (either from GIS data or field reconnaissance). This information is based on visual observations and does not include delineations.	Count	2	14	3	2
	Wetlands identified within 50 feet each side of segment centerline (either from GIS data or field reconnaissance). This information is based on visual observations and does not include delineations.	Count/Mile	3.3	2.2	0.8	0.9
Stream Crossings	Stream within 50 feet each side of segment centerline (based on GIS layers and field reconnaissance).	Count	2	1	1	1
	Stream within 50 feet each side of segment centerline (based on GIS layers and field reconnaissance).	Count/Mile	3.3	0.2	0.3	0.5
High Slope Instability - Adjacent	High instability within 25 feet of a corridor (based on DNR Slope Stability Rating Area).	Percent of Segment	1.2	0.8	2.4	0.1
Medium Slope Instability - Adjacent	Medium instability within 25 feet of a corridor (based on DNR Slope Stability Rating Area).	Percent of Segment	5.4	0.9	4.4	0.9
Low Slope Instability - Adjacent	Low instability within 25 feet of a corridor (based on DNR Slope Stability Rating Area).	Percent of Segment	0.4	0.1	1.2	0.0
Moderately Steep Slopes - Adjacent	Slopes greater than 20% and less than 40% within 25 feet of a corridor derived from King County LiDAR elevation.	Percent of Segment	20.7	12.2	17.1	7.3
Steep Slopes - Adjacent	Slopes greater than 40% within 25 feet of a corridor derived from King County LiDAR elevation.	Percent of Segment	5.9	5.1	5.3	1.9
Faults - Adjacent	Number of faults that are within 25 feet of a corridor derived from DNR fault data set.	Count	0	0	0	0
	Number of faults that are within 25 feet of a corridor derived from DNR fault data set.	Count/Mile	0.0	0.0	0.0	0.0

Data	Description	Unit	Segment A 0.6 miles	Segment B 6.24 miles	Segment C 3.65 miles	Segment D 2.14 miles
Evaluation factor - Least proximity to residential areas						
Residential Parcels - Adjacent	Residential use within 25 feet of a corridor (based on King County assessor data).	Count of Parcels	0	282	137	1
	Residential use within 25 feet of a corridor (based on King County assessor data).	Count/Mile	0.0	45.2	37.5	0.5
Residential Parcels - Near	Residential use within 600 feet of a corridor (based on King County assessor data).	Count of Parcels	77	1130	764	30
	Residential use within 600 feet of a corridor (based on King County assessor data).	Count/Mile	128	181	209	14
Residential Parcels with No Existing Transmission Infrastructure - Adjacent	Residential use within 25 feet of a corridor that have no existing transmission lines (based on King County assessor data).	Count of Parcels	0	112	0	1
	Residential use within 25 feet of a corridor that have no existing transmission lines (based on King County assessor data).	Count/Mile	0.0	17.9	0.0	0.5
Residential Parcels with No Existing Transmission Infrastructure - Near	Residential use within 600 feet of a corridor that have no existing transmission lines (based on King County assessor data).	Count of Parcels	0	392	0	30
	Residential use within 600 feet of a corridor that have no existing transmission lines (based on King County assessor data).	Count/Mile	0.0	62.8	0.0	14.0
Evaluation factor - Least proximity to mature vegetation						
Tree Removal	Total number of trees greater than 4-inch dbh throughout entire segment. The following methods were used to develop the tree estimates: LiDAR, Google Earth, and/or field reconnaissance.	Tree Total >4- inch (dbh)	71	3,994	2,659	859
	Total number of trees >4-inch (dbh) requiring work throughout entire segment. The following methods were used to develop the tree estimates: LiDAR, Google Earth, and/or 200 feet x 60 feet field reconnaissance.	Trees >4-inch (dbh) per mile	118	640	728	401

Data	Description	Unit	Segment A 0.6 miles	Segment B 6.24 miles	Segment C 3.65 miles	Segment D 2.14 miles
Evaluation factor - Maximizes opportunity areas						
Type of right-of-way	Corridor length along private right-of-way.	Miles	0.6	0.4	3.5	0.1
	Corridor length along private right-of-way.	Percent	100.0	6.4	95.9	4.7
	Corridor length along public right-of-way.	Miles	0.0	4.3	0.2	2.0
	Corridor length along public right-of-way.	Percent	0.0	69.0	5.5	93.5
	Corridor length along railroad right-of-way.	Miles	0.0	1.5	0.0	0.01
	Corridor length along railroad right-of-way.	Percent	0.0	24.7	0.0	0.5
Existing Transmission Infrastructure	Miles of existing Overhead Transmission Infrastructure. See Map.	Miles	0.6	3.4	3.6	0.004
	Miles of existing Overhead Transmission Infrastructure. See Map.	Percent	100.0	54.8	99.0	0.2
	Miles of Railroad right-of-way with adjacent existing Overhead Transmission Infrastructure. See Map.	Miles	0.0	0.0	0.0	0.0
	Miles of Railroad right-of-way with adjacent existing Overhead Transmission Infrastructure. See Map.	Percent	0.0	0.0	0.0	0.0
Evaluation factor - Most protective of health and safety						
Fuel Pipeline Present	Liquid fuel pipelines present with existing high voltage transmission lines.	Presence	Yes	No	Yes	No
Polychlorinated Biphenyl (PCB) Levels	None of the equipment proposed along any segment or as part of substation improvements will contain PCBs.	Additional PCBs	0	0	0	0
EMF from New Line	EMF levels are design and operationally dependent; however, all levels will be below published World Health Organization (W.H.O.) and Institute of Electrical and Electronics Engineers (IEEE) recommended exposure levels.	Below Recommended W.H.O. and IEEE Levels	Yes	Yes	Yes	Yes

Other relevant data

Some requests were made that did not directly relate to evaluation factors and that information is captured in the table below.

Data Name	Data Description	Data Unit	Segment A 0.6 miles	Segment B 6.24 miles	Segment C 3.65 miles	Segment D 2.14 miles
Businesses - Near	Industrial, Medical, Retail/Business use within 600 feet of a corridor based on King County assessor data.	Count	12	129	17	168
	Industrial, Medical, Retail/Business use within 600 feet of a corridor based on King County assessor data.	Count/Mile	20.0	20.7	4.6	80.0
Road Access for Construction	Access from roads using typical bucket truck equipment based on King County parcels and ArcGIS Basemap imagery.	Miles	0.0	4.4	0.1	2.0
	Access from roads using typical bucket truck equipment based on King County parcels and ArcGIS Basemap imagery.	Percent	0	70.7	2.7	93.5
Construction Cost Estimate	Percent difference from average cost estimate including construction, vegetation removal and restoration.	Percent	10	-11	-23	-2
Electric System Longevity	Electric System Longevity: Estimated year when the next 230 kV line for a second Eastside transformer is needed. Depends on the complete route, not just an individual segment. *Requires the entire route built to accommodate two 230 kV lines.	Year	2038-2060*	2038	2038-2060*	2034-2038
Industrial Area – Near	Industrial area within 600 feet of a corridor based on King County assessor data.	Count	5	17	4	49
	Industrial area within 600 feet of a corridor based on King County assessor data.	Count/mile	8.3	2.7	1.1	23.0
Industrial Area - Adjacent	Industrial area within 25 feet of a corridor based on King County assessor data.	Count	0	12	0	19
	Industrial area within 25 feet of a corridor based on King County assessor data.	Count/Mile	0.0	1.9	0.0	9.0
Proposed Substation 115kV Improvements	See Map showing additional 115kV improvements needed for the Westminster or Vernell substation sites.	See Map				